



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,967	04/12/2004	Hung-Yuan Su	2019-0248PUS1	3104
2292	7590	09/09/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			SOWARD, IDA M	
			ART UNIT	PAPER NUMBER
			2822	

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/821,967

Applicant(s)

SU ET AL.

Examiner

Ida M. Soward

Art Unit

2822

mw

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 8 and 12-15 is/are rejected.
- 7) ☒ Claim(s) 4, 6, 7 and 9-11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4-12-04.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to the application filed April 12, 2004.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5, 8 and 12-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Loh (US 6,897,486 B2).

In regard to claim 1, Loh teaches an optical semiconductor component, comprising: a plurality of conducting wire holders 30; a plurality of independent chip carriers 10 secured on the conducting wire holders 30; a plurality of semiconductor chips 50 secured on the independent chip carriers 10; a first curved surface 22 made of a portion of the conducting wire holders 30, wherein the semiconductor chips 50 are

Art Unit: 2822

placed at a focus of the first curved surface; a plurality of independent connecting components made of another portion of the conducting wire holders 30; and a second curved surface 60 surrounded by a package body 40, wherein the semiconductor chips 50 are placed at a focus of the second curved surface 60 (Figures 3-4 and 5D, columns 4-6, lines 4-67, 1-67 and 1-29, respectively).

In regard to claim 2, Loh teaches the independent chip carriers 10 having a multi-layer structure (Figures 3-4 and 5D, columns 4-6, lines 4-67, 1-67 and 1-29, respectively).

In regard to claim 3, Loh teaches upper surfaces of the independent chip carriers 10 being conductors used to electrically connect with the semiconductor chips 50 (Figures 3-4 and 5D, columns 4-6, lines 4-67, 1-67 and 1-29, respectively).

In regard to claim 5, Loh teaches lower surfaces of the independent chip carriers 10 being conductors (Figures 3-4 and 5D, columns 4-6, lines 4-67, 1-67 and 1-29, respectively).

In regard to claim 8, Loh teaches a portion of the independent connecting components is located inside the package body for electrically connecting with the semiconductor chips 50 and another portion of the independent connecting components 82 is projected from the package body for electrically connecting an external circuit (Figure 5D).

In regard to claim 12, Loh teaches a window 42 for light to pass through, wherein the window 42 is formed by the first curved surface 22 and the second curved surface 60 (Figures 3-4 and 5D, columns 4-6, lines 4-67, 1-67 and 1-29, respectively).

Art Unit: 2822

In regard to claim 13, Loh teaches the semiconductor chips 50 and the independent chip carrier 10 being placed inside the window 42 (Figures 3-4 and 5D, columns 4-6, lines 4-67, 1-67 and 1-29, respectively).

In regard to claim 14, Loh teaches the window 42 covered by a transparent optical component 70 (Figures 3-4 and 5D, columns 4-6, lines 4-67, 1-67 and 1-29, respectively).

In regard to claim 15, Loh teaches the transparent optical component 70 being a concave lens (Figures 3-4 and 5D, columns 4-6, lines 4-67, 1-67 and 1-29, respectively).

Allowable Subject Matter

Claims 4, 6-7 and 9-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to optical semiconductor components:

King (4,114,177)

Kovacs et al. (5,064,968)

Landers, Jr. et al. (US 6,246,123 B1)

Lin et al. (US 2004/0238836 A1).

Art Unit: 2822

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ida M. Soward whose telephone number is 571-272-1845. The examiner can normally be reached on Monday - Thursday 6:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amir Zarabian can be reached on 571-272-1852. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

IMS
September 6, 2005

Ida M. Soward
AI 2822